

REMARKS

Claims 1 and 7-10 were pending in this application. Claim 7 has been cancelled. Claims 1, 8, and 10 have been amended. Specifically, the limitation relating to the log management subsystem has been deleted. Furthermore, the more detailed aspects further limiting the functionality of the version management subsystem, consistency verification subsystem, and cover page analysis subsystem described in claims 8, 9, and 10, respectively, have been summarized with respect to the respective components of claim 1. Accordingly, no new subject matter is believed to have been added by these amendments. Claims 8 and 10 have been amended to correct a respective antecedent basis. Therefore, claims 1 and 8-10 remain in this application.

35 U.S.C. §102 Rejections

Claims 1 and 7-10 stand rejected under 35 U.S.C. § 102(b) for anticipation by U.S. Patent No. 6,427,032 to Irons et al. (hereinafter “the Irons patent”). Claims 1 and 7-10 have also been rejected under 35 U.S.C. §103(a) for obviousness over U.S. Patent No. 6,456,747 to Altman in view of U.S. Patent No. 6,043,819 to LeBrun et al. (hereinafter “the LeBrun patent”). Applicants respectfully disagree with the Examiner’s rejections.

With respect to the anticipation rejection, and with reference to the version management subsystem and the cover page analysis subsystem limitations of claim 1, the Irons patent is limited to a system configured to identify a batch cover sheet that includes a unique document identifier (See Abstract). The Irons patent fails to disclose a cover page analysis subsystem utilizing field name extraction, as set forth in dependent claims 8 and 10, and now clarified in amended independent claim 1.

With respect to the obviousness rejection, the Examiner acknowledges that the Altman patent fails to disclose an access management subsystem, a version management subsystem, a consistency verification subsystem, and a cover page analysis subsystem. The Examiner asserts that these aspects are disclosed in the LeBrun patent. However, the version management subsystem, as set forth in dependent claims 8 and now clarified in amended independent claim 1, is not disclosed in the LeBrun patent. A detailed discussion of the

LeBrun patent is presented in connection with Applicants' arguments with respect to dependent claim 8. For now, Applicants would like to emphasize that the system disclosed in the LeBrun patent relates to form processing (i.e., interpreting a word on a document or identifying the form). In contrast, the claimed version management subsystem is configured to deal with an already existing version of a document and how to relate a document under processing with a document that is already present within the system. To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). As the secondary reference (i.e., the LeBrun patent) does not anticipate the limitation, among others, of providing a management subsystem, a *prima facie* case of obviousness cannot be made.

In view of the above amendments and the following remarks, Applicants respectfully request reconsideration of the anticipating and obviousness rejections of claim 1. Claims 8-10 depend from and add further limitations to amended independent claim 1 and are believed to be patentable for the reasons discussed hereinabove in connection with amended independent claim 1.

Although Applicants view claim 1 to be patentable as currently amended, Applicants wish to set forth arguments for the separate patentability of the dependent claims 8-10 with respect to the anticipation and obviousness references applied thereto.

Regarding rejection of claim 8 based on the Irons patent (Figs. 12-15, Col 25 lines 41-54, Col 30 lines 23-41, Col 31 lines 12-26) and the LeBrun patent (Figs. 1 and 3-6, Abstract, Col 2, lines 57-66). The Irons patent, as disclosed in Figs. 12, 13, and 13a, is related to dynamically resizing and rotating digitally displayed images of paper-based documents; Fig. 14 describes the functionality of an auto-rotating mechanism; and Fig. 15 describes an audit/action mechanism. Figs. 12-15 do not address the issues of version management as set forth in the claim.

In Col 25, lines 41-54, the Irons patent discloses the viewing of newly scanned images for the purposes of review and quality, however, this does not deal with versioning of documents that is related to the different versions of the same document scanned and inputted to the system at different times.

In Col 30, lines 23-41, the Irons patent describes the audit/action mechanism dealing with multiple users indexing, scanning, and retrieving documents; furthermore, the audit/action mechanism continually parses the various databases that store information regarding the digital images of the paper-based documents. Again, this aspect does not relate to document versioning, as claimed.

In Col 31, lines 12-26, the Irons patent describes error handling capabilities, such as checking on page count. However, this too does not relate to document versioning, as claimed.

The LeBrun patent, in Figs. 1 and 3-6, discloses the aspects related to image acquisition and capture management. Fig. 1 illustrates a block diagram related to a document processing system organized around a local area network that forms the central component of the document processing and information management system. Here, the system is being called an Information Management System, as it is a computer based document management system. All subsystems including the image acquisition subsystem communicate with a local area network. The image acquisition subsystem conveys the captured image from an input device to the local area network.

Fig. 1b describes an alternate arrangement for the document processing system for high volume applications. An image transformer receives digital data and converts the digital data to provide a graphics image of each document received from the remote location to the LAN network via a control computer. An image character reader provides ASCII data to the local area network. Storage in the form of hard disks or optical discs receives and stores graphics images and character data from the LAN. The intelligent character reader (ICR) in the system can examine the pre-chosen identification areas to interpret a word on the document and identify the document.

In Col 2, lines 57-66, the LeBrun patent discloses the motivation behind the invention, namely, capturing an optical image of numerous intermixed documents of different sizes and formats, taken directly from opened mail, to serially numbering them before or after image capture, to automatically separating the checks, and to identify the form or document under observation. More specifically, in Fig. 3 and references 80, 88, and 90, the automatic

processing of intermixed forms, checks, and documents is described. The integrity of each separate transaction must be maintained. In other words, all the documents relating to a single transaction must be logically "held together" by the system. In reference 90, forms and pages are automatically identified by the image character reader. The image recognition system is suggested to be used to automatically identify forms. Reference 94 relates to the carving of graphical data areas based on the identified form and the carved graphical data areas are sent to the recognition subsystem. Reference 96 is used to account for imperfect character readers. Finally, reference 98 relates to auditing using a computer program to determine its accuracy and reference 100 relates to manually correcting some of the serious errors (such as zip code and city mismatch).

In the Abstract, the LeBrun patent discloses the overall scope of the invention, namely, an image-based document processing and information management system and apparatus. The system provides a more efficient method and apparatus for handling large volumes of form based business transactions using a digital image-based system for the capture, identification and processing of images, statistics and business data. The system converts documents, such as forms and supporting pages, into digital data that can be used to update computer records and to manage and support the adjudicative processing of business transactions by human operators at computer terminals.

As stated above, the system disclosed in the LeBrun patent is a digital image-based system for the capture, identification, and processing of images. Further, character recognition is discussed in general for creating computer processable characters. To summarize, in the LeBrun patent, (a) Fig. 1 describes a system for document capture, processing, storage, and retrieval; (b) Fig. 1a provides a more detailed block diagram of the image acquisition subsystem; (c) Fig. 1b provides a network view; (d) Fig. 1c depicts a block diagram of application subsystem responsible for managing data and image flow as individual graphics into and out of storage; (e) Fig. 3 describes a sequence of steps taken to carve data areas and automatically identifying characters in the carved area; (f) Fig. 4 represents, as an illustration, the application of the invention to a typical hand-written social security number field that has been electronically carved from a document as it appears on a terminal, displayed as a graphical data area; (g) Fig. 5 depicts a hand-written alpha-numeric field in the form of a name and address field as it appears, displayed on a terminal screen as a

graphical data area; and (h) Fig. 6 shows an operator selecting the word identifier "exemption" on a typical federal tax form.

It is evident from the above-description that the LeBrun patent fails to address the issue related to version management. The analysis suggested by the LeBrun patent is from the point of view of form processing: to interpret a word on a document or identify the document. Furthermore, the LeBrun patent suggests that the images and data kept and related to a transaction should not be intermixed with those of another transaction. However, the version management of the present invention, and as set forth in the claims, relates to an already existing version of the document and how to relate a document under processing with a document that is already present within the system.

Regarding rejection of claim 9 based on the Irons and LeBrun patents, the Irons patent, in Figs. 12-15 and Col 25 lines 41-54, discloses various document viewing possibilities with dynamic resizing and rotation, and the viewing of newly scanned images for the purposes of review and quality. Accordingly, the prior art does not relate to consistency verification of a document involving page by page verification. In contrast to the prior art, claim 9 relates to comparison of physical document characteristics to ensure consistency.

Based on the foregoing discussion of the LeBrun patent (with respect to Figs. 1, 3-6), it is evident that the objective of the LeBrun patent is not to perform consistency analysis between the hard form and soft form of a document, but instead, to support large volumes of form-based business transactions using a digital image-based system for the capture, identification and processing of images, statistics and business data. The system of the LeBrun patent converts documents, such as forms and supporting pages, into digital data which can be used to update computer records and to manage and support the adjudicative processing of business transactions by human operators at computer terminals. Further, in Col 17 lines 14-37, the LeBrun patent suggest the following: step 84, together with steps 80, 88 and 90 permit the automatic processing of intermixed forms, checks, and documents keeping in mind the integrity of each of the separate transactions. In other words, all the documents relating to a single transaction must be logically "held together" by the system. The obtained transaction integrity allows for easy electronic retrieval of all documents of the transaction. The important motivation for this transaction integrity is to be able to process all

the contents of an envelope (containing documents related to a transaction) in a sequential manner. This is in contrast to the claimed present invention in which a stored physical document and its electronic counterpart are compared to assess the consistency therebetween via comparison of the creation details, submission history, and document pages. Thus, the claimed subject matter of claim 9 is neither anticipated nor obviated by either the Irons (see Figs 12-15, Col 25 lines 41-54) or LeBrun patents (Figs. 1 and 3-6, Col 17 lines 14-37).

Regarding rejection of claim 10 based on the Irons and LeBrun patents, as previously mentioned, the Irons patent fails to address the cover page analysis aspects (See Figs. 12-15, Col 25 lines 41-54, Col 30 lines 23-41, and Col 31 lines 12-26). In Col 2 lines 57-67 to Col 3 lines 1-13, the LeBrun patent discloses the need for optical image capturing and processing so as to separate the numerous intermixed documents of different sizes and formats. The system of the LeBrun patent can electronically read various data fields automatically to help human operators efficiently input data into the system. It is evident that the LeBrun patent fails to disclose the claimed cover page analysis.

In claim 10, the use of image processing techniques to obtain a plurality of field names and their corresponding values (such as document description, category, number of sheets of paper contained in the document, document creation history, and document submission history) is set forth with respect to a cover page analysis. During a cover page analysis, information is obtained for (a) correct cataloging and indexing of the documents, thereby, ensuring unique mapping between hard form and soft form of documents (Fig. 14, step 1404); (b) document version management (Fig. 1 description); and (c) information consistency verification using additional user input (Fig. 7, step 722).

In view of the foregoing, it is evident that the system disclosed in the Irons and the LeBrun patents do not disclose the claimed aspects of (a) handling multiple versions of a document; (b) ensuring consistency between a hard form and the corresponding soft form of the documents; and (c) a document cover page analysis. Accordingly, reconsideration of the rejections of dependent claims 8-10 is also respectfully requested.

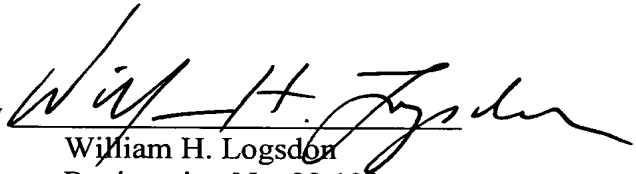
CONCLUSION

Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of pending claims 1 and 8-10 are respectfully requested.

Respectfully submitted,

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